

## REMARKS

Drawing

So that all claimed elements are shown in the drawing, Fig. 5 is added showing a main amalgam. This figure is copied from Fig. 1 of US 5,204,584 discussed in the application except for reference numerals.

Specification

To provide express support for the reference to a main amalgam in amended claim 1, and the addition of Fig. 5, page 2 is amended to refer to added Fig. 5 and the amalgams shown therein.

Claims

To distinguish the invention more clearly from the cited art, claims 1, 15 and 16 are amended, and claims 19-21 are added.

Art rejection - US 6,043,603 (Weinhardt)

To the extent that the rejection over Weinhardt might be maintained against amended claim 1 or claims dependent therefrom, reconsideration is requested because nothing in Weinhardt suggests a lamp having both a main amalgam and an auxiliary amalgam, with the auxiliary amalgam arranged as claimed herein for rapid heating during lamp warm-up.

One of ordinary skill would not describe Figs. 1-4 or 7 as showing or suggesting an auxiliary amalgam disposed on a carrier in the proximity of at least one of the electrodes. Rather the location shown suggests spacing from the electrodes so that the heating to very high temperatures during manufacture will not cause material to deposit onto the electrodes. Figs. 8 and 9 show the importance of this problem, because the mercury-containing coating is on the side of the carrier facing away from the electrode.

Art rejection - US 6,043,603 in view of US 3,562,571 (Evans)

To the extent that the rejection over Weinhardt in view of Evans might be maintained against previously added claim 14 taken together with amended claim 13, reconsideration is requested because Evans teaches the importance of electrically connecting the snugly fitted carrier

to one of the electrodes to provide a "fail-safe" function of causing the arc to transfer to the carrier if the emission material on the cathode is exhausted. Thus there is no suggestion of a press-fit carrier which is insulated from the electrodes. To the contrary of Evans, the value of this electrical insulation is specifically disclosed at lines 14-22 of page 4 of the instant application. Accordingly, the combination of Weinhardt and Evans does not suggest the limitations of claim 14.

Art rejection - US 6,043,603 in view of US 3,688,148 (hereinafter "Fedorenko")

To the extent that the rejection over Weinhardt in view of Fedorenko might be maintained against amended claim 15, reconsideration is requested because amended claim 15 clearly requires that the carrier is on an exterior surface of the exhaust tube. To the contrary, Fedorenko teaches that the main amalgam is in a tube which is fitted inside the stem press, or is in a tubular extension of the interior of the stem. Neither of these configurations at all suggests the extensive modification of Weinhardt which would be required to meet the limitations of claim 15. Accordingly, the combination of Weinhardt and Fedorenko does not suggest the limitations of claim 15.

Claim 16

Claim 16, previously indicated as being allowable, is substantially of the same scope as before. The difference is that, rather than using the term "press fitted" (found in original claim 6) the slightly broader term "clamped" (page 6, line 32) is substituted. "Clamped" covers both a true press fit, when the portions 25B of Figs. 3 and 4 are deflected elastically outward as the carrier is pushed over the exhaust tube end portion, and the clamping that occurs if the portions 25B are bent inwards during assembly (line 34 of page 6 to line 1 of page 7). Preferably this clamping is performed after the stem has passed through a relaxation oven to reduce strains in the glass. Relaxation normally involves heating to about 400°C in air.

This manner of assembly is especially advantageous because the preferred auxiliary amalgam cannot withstand high temperatures (page 7, lines 10-16). Conditions in the relaxation oven will melt or oxidize many desirable amalgams. The alternative use of a support wire increases the number of manufacturing steps, because the carrier must be welded to the support wire as an additional step.

CONCLUSION

All formal matters are complied with, and the claims are shown to be patentable. Early favorable action on the merits of the application is requested.

Respectfully submitted,

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enc: sketch

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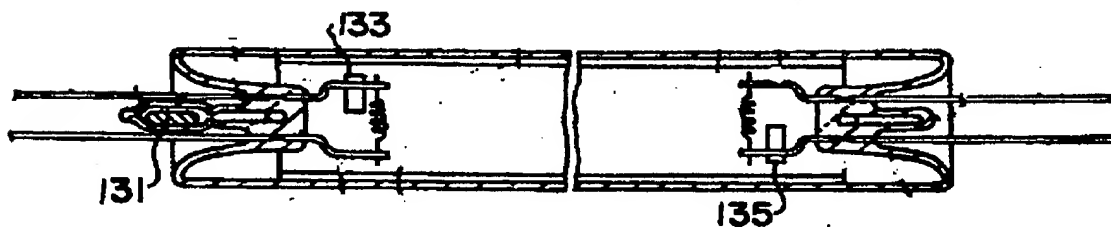


FIG. 5

PRIOR ART